Construction problem ...

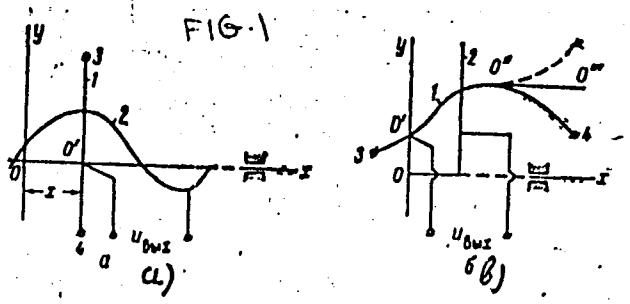
method of the figure slide (Fig. 1b). This potentiometer has the following characteristics; 1) An open form of the slide wire and two feed terminals can furnish a monotonously changing output potential as a function of x; 2) differential forms of the slide wire can be utilized to obtain the same dependence of the output potential from x, e.g., the mirror image of 0"0'" which is drawn with broken lines in Fig. 1b. A functional potentiometer can be built as a combination of two potentiometers which have been mentioned, this is called the combination method. Fig. 1c shows the diagram of a sine-potentiometer having a figure-slider. Using a figure-slide wire in potentiometers with angular displacements the same function of the output potential may be obtained with different forms of the slide wire: Fig. 1d, resp. 1e. On both potentiometers the point 0 of the slide wire has to be insulated from the slider for any α except $\alpha = 0$. This is done with a groove (B on Fig. 1c). The figure-slide wire will have a larger resistance than the slide wire of a potentiometer having a figure slider if all other conditions are equal. The disadvantage of both potentiometers is that the touching angle of the slider with the slide wire will change as the slider is moved. Fig. 2 shows a construction of a sine-potentiometer its slider may be turned from $\alpha = 0$ to $\alpha = \pi/2$. The a-curve represents the slide wire

Construction problem ...

of a potentiometer built according to the combination method, the b-curve that of a figure-slide wire. It is pointed out that a slide wire applied as described will furnish an absolutely accurate dependence of the output potential on the position of the slider. There are 2 figures.

SUBMITTED: October 3, 1960

FIG. 1



Card 3/4

FRYGIN, V.M., inzh.

Calculation of currents in an equivalent circuit of a three-phase ore smelting furnace. Izv. vys. ucheb. zav.; energ. 6 no.11:28-36 N'63. (MIRA 17:2)

1. Kuybyshevskiy politekhnicheskiy institut imeni V.V. Kuybysheva. Predstavlena kafedroy teoreticheskoy i obshchey elektrotekhniki.

SANKOVICH, N.N., kandidat tekhnicheskikh nauk; FRYKIN, S.S., gosudarstvennyy sanitarnyy inspektor

Standardization of a forced-air heating system with a concentrated air outlet. Gig. i san. 21 no.10:20-25 O '56. (MLRA 9:11)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta gidrotekhnicheskikh i sanitarno-tekhnicheskikh rabot i Gosudarstvennoy sanitarnoy inspektsii Leningrada.

(INDUSTRIAL HYGIENE
forced air heating system with concentrated air outlet in factories in Russia)
(HEATING
same)

FRYNKU, Paul': Master Tech Sci (diss) -- "Some problems of organizing the work of road separation". Moscow, 1958. 7 pp (Min Transportation USSR, Moscow Order of Lenin and Order of Labor Red Banner Inst of Railroad Transport Engineers im I. V. Stalin), 150 copies (KL, No 2, 1959, 123)

FRYNKU, Paul', inzh.

Coordinating graphic train sheets with locomotive circulation.
Zhel. dor. transp. 40 no.3:58-62 Mr '58. (MIRA 11:4)
(Railroads--Traffic)

FRYML, B.; BORUVKA, V.

Balancing rotors of varying stiffness. p. 562.

STROJIRENSTVI (Ministerstvo tezkeho strojirenstvi, Ministerstvo vseobecneho stronirenstvi) Praha, Czechoslovakia, Vol. 9, no. 8, Aug. 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 2, Feb. 1960

Uncl.

PISKACOVA, A.; FRYNTA, M.

Treatment of burns in children. Acta. chir. orthop. traum. cech. 19 no. 4-8:233-236 1952. (CLML 23:2)

1. Of the Department of Orthopedics and Children's Surgery (Head--Vaclav Tosovsky, M.D.) of State Hospital in Prague II.

DITTRICH, J.; FRYNTA, E.; JIROUT, J.; KUBAT, K.; TOSOVSKY, V.

Experience with 80 cases of operated meningomyelocele in newborn & young infants. Cesk. pediat. 14 no.2:123-129 5 Feb 59.

1. Detska chirurgicka klinika, prednosta doc. MUDr. V. Kafka, oddeleni pro ortopedii a traumatologii, prednosta doc. MUDr. V. Tosovsky. Neurologicka klinika, prednosta akademik prof. MUDr. K. Henner. Detske neurologicke oddeleni, vedouci lekar: doc. MUDr. I. Lesny II. patologicko-anatomicky ustav Karlovy university: prednosta prof. MUDr. V. Jedlicka.

(MENINGES
meningomyelocele in newborn & young inf., surg. (Cz))

TOSOVSKY, Vaclav; FRYNTA, Emil; HAVLIKOVA, Dana; VYCHYTIL, Otto

Two cases of annular pancreas in infants. Cesk. pediat. 14 no.3: 260-263 5 Mar 59.

1. Klinika detske chirurgie, prednosta doc. MUDr. Vaclav Kafka, III. detska klinika, prednosta prof. MUDr. Otto Vychytil.
(PANCREAS, abnorm.
annular pancreas in inf. (Cz))

RABOCH, J.; ZAHOR, Zd.; FRYNTA, E.

On determination of the optimal age for treatment of cryptorchism. Cesk. pediat. 17 no.3:237-239 Mr '62.

1. Sexuologicky ustav Karlovy university v Praze, prednosta prof. dr. Jos. Hynie II patologickoanatomicky ustav Karlovy university v Praze, prednosta prof. dr. V. Jedlicka Klinika detske chirurgie, prednosta prof. dr. V. Kafka.

(CRYPTORCHISM surgery)

FRYNTA, V.

Frynta, V. Gliders equipped with servomotors. (To be contd.) p.379.

No. 16, Aug. 1955 KRIDLA VLASTI Praha, Czechoslovakia

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 2 February, 1956

FRYNTA, V.

Gliders equipped with servoumotors. (To be contd.)

p. 403
No. 17, Aug. 1955
KRIDLA VLASTI
Praha, Czechoslovakia

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, no. 2
February 1956, Uncl.

FRYNTA, V.

Gliders equipped with servomotors. (To be contd.)

p. 427
No. 18, Sept. 1955
KRIDLA VLASTI
Praha, Czechoslovakia

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, no. 2
February 1956, Uncl.

FRYNTA, V.

Gliders with servomotors. (To be contd.) p. 451.

KRIDLA VLASTI no. 19, Sept. 1955

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

FRYNTA, V.

Gliders with servomotors. (To be contd) p. 475.

KRIDLA VLASTI. Praha, Czechoslovakia. No. 20, Oct. 1955.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 2, Feb. 1960. Uncl.

FRYNTA, V.

"Gliders with servomotors."

KRIDLA VLASTI, Praha, Czechoslovakia, No. 21, October 1955.

Monthly List of East European Accessions (EAI), LC, Vol. 8, No. 9, September 1959.

Unclassified.

28599
Z/040/61/000/011/001/003
D005/D102

10.1500

AUTHORS: Frynta, Vladimír, Engineer, and Tichopád, Vladimír, Engineer

TITLE: Tilting-wing aircraft. The use of a flying model for research on new concepts of V/STOL aircraft

PERIODICAL: Letecký obzor, no. 11, 1961, 349-351

TEXT: The article deals with several problems which arise in designing V/STOL aircraft and which are quite different from those connected with the design of conventional aircraft. Tests of V/STOL aircraft models in large wind tunnels yield inaccurate results due to the fact that the medium and the model are not mutually active. To eliminate this disadvantage the following systems of testing captive models can be used: (1) The model is attached to a slewing-crane jib. (2) The model is freely suspended from a truck-crane jib. (3) The model is freely suspended from a travelling-crane jib. (4) The model is freely suspended from a crab travelling on a cable tightened between two masts. The latter system has been selected, and a test rig has been built at the airfield of the Výzkumný a zkušební letecký

Card 1/4

Tilting-wing aircraft.

ústav (Aviation Research and Testing Institute) in Letňany. Its diagram is shown in Fig. 1. The design of the model and the rig is such that it not only enables qualitative tests but also quantitative measurements. The measuring instruments on the model are fitted with pickups and their electrical signals are recorded in a control cabin. The model is built mainly of wood and glass laminates. It is fitted with two 2.5 hp combustion engines driving two, two-blade propellers. The controls and throttle are actuated by an electropneumatic system. The wing-tilting is effected by a small electromotor. For weight-to-power-ratio reasons, the fuel tank and compressed-air cylinder are carried on a trapeze to which the model is attached by a securing cable. The trapeze, in turn, is suspended from the crab which moves on a carrying cable tightened between two masts. This system makes possible horizontal and vertical movements of the model across the entire length of the measuring path in such a manner that its free flight is only very slightly affected by the securing cable and feeding hoses. Technically, the model is very complicated, but its successful solution will substantially accelerate and economize further research on new concepts of V/STOL aircraft. There are 4 figures.

Card 2/4

FRYNTA, Zdenek

A conference on designing radioisotope laboratories.
Jaderna energie 4 no.6:174-175 Je '58.

FRYNTA, Zdenek; KHOL, Frantisek

Tight case for the work with radioisotopes. Jaderna energie 8 no.3:97-98 Mr '62.

1. Statni vyzkumny ustav materialu a technologie, Praha.

CZECHOSLOVAKIA/Nuclear Physics - Installations and Instruments C-2
Methods of Measurement and Research

Abs Jour : Ref Zhur - Fizika, No 2, 1959, No 2660

Author : Frynta Z., Langmajer J.
Inst :
Title : Containers for the Radio Isotope Co^{60}.

Orig Pub : Jaderna energie, 1958, 4, No 4, 98-102

Abstract : The bulk coefficient of attenuation for lead and iron have approximately identical values in the region of γ-ray energies from Co^{60}. It is therefore best to design the containers in such a way that the internal portion is made of lead and the outer, thicker case be made of iron. Data are given for the calculation of the thickness of the container walls of lead and iron. To show that the design of containers can give great economy in lead or other heavy metals. Author's resume

Card : 1/1

FRYNTA, Zd.

"Industrial radiography". Reviewed by Zd. Frynta. Jaderna energie 8 no.1:35 Ja '62.

FRYNTA, Z.; LANGMAJER, J.

Shielding for the radioisotope Co^{60}. Jaderna energie 4 no.4:98-102 Ap '58.

1. Vyzkumny ustav materialu a technologie, Praha.

FRYNTA, Zdenek

Use of radioisotopes in measuring the wear of geared wheels of large gear boxes. Jaderna energie 10 no. 5:174-176 My '64.

1. State Research Institute of Materials and Technology, Prague.

BUDINOVA-SMELA, J.; FRYNTOVA, A.; SLEPICKA, J.

Roentgen therapy of painful joint syndrome in hemiplegic patients.
Cesk.rentg. 13 no.6:397-399 D '59.

1. Oddeleni pro cevni onemocneni mozku, predn.dr. J. Budinova, oddeleni centr.rtg. Thomayerovy nemocnice v Krci, predn.dr. F. Bilek.
(HEMIPLEGIA compl.)
(JOINTS dis.)
(RADIOTHERAPY)

BUDINOVA-SMELA,J.; FRYNTOVA,A.; SLEPICKA,J.

Trophic changes in the extremities in hemiplegic patients. Part I. Changes in the soft tissues of the extremities. Cesk. neur. 23 no.1/2:43-47 Ja '60.

1. Thomayerova nemocnice v Praze 14-Krci; Oddeleni pro cevni nemoci mozku (vedouci dr. J. Budinova-Smela) ; Centralni rtg oddeleni, vedouci dr. F. Bilek.
(HEMIPLEGIA pathol.)
(EXTREMITIES pathol.)

BUDINOVA-SMELA, J.; FRYNTOVA, A.; SLEPICKA, J.

Trophic changes in the extremities of hemiplegics. Cesk.neur. 23 no.3:176-181 Mr '60.

1. Thomayerova nemocnice v Praze 14-Krci, oddeleni pro cevni nemoci mozku, vedouci dr. J. Budinova-Smela. Centralni rtg.oddeleni, vedouci dr. F. Bilek..

(HEMIPLEGIA compl.)
(VASCULAR DISEASES, PERIPHERAL etiol.)

PIRK, F.; BELAN, A.; TRAVNICEK, R.; BUDINOVA-SMELA, J.; FRYNTOVA, A.; technicke spoluprace BUFKA, L.; KRIZOVE, M.; KUBIASOVE, E.; KUTILA, L.

Our experiences with roentgen cinematography in cerebral angiography. Preliminary report. Cesk. neur. 24 no.1:51-53 Ja '61.

1. Ustav pro vyzkum vyzivy lidu, Praha, reditel doc. MUDr. J. Masek - Ustav pro klinickou a experimentalni chirurgii, Praha, reditel profesor MUDr. B. Spacek - Oddeleni pro cevni onemocneni mozku, predn. doc. MUDr. J. Budinova-Smela, Laboratore statniho filmu, Barrandov.

(CEREBRAL ANGIOGRAPHY)

FRYNTOVA, A.; MARX, F.

Obliteration of the internal carotid artery in the roentgen picture. Sborn. lek. 64 no.11:333-339 N '62.

1. Oddeleni pro nahle prihody mozkove Thomayerovy nemocnice v Praze 4, prednosta doc. dr. J. Budinova-Smela Radiologicka klinika fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta prof. dr. V. Svab.

(CAROTID ARTERY DISEASES) (CEREBRAL EMBOLISM AND THROMBOSIS)
(CEREBRAL ANGIOGRAPHY)

CZECHOSLOVAKIA

BUDINOVA, J., Docent, Dr, Dr of Sciences, and FRYNTOVA, A., Department for Brain Vessel Diseases (Oddeleni pro cevni nemoci mozku), Thomayer Hospital, Prague-Krc, Dr J. BUDINOVA-SMELA, director.

"Neurologist's Attitude to the Surgical Treatment of Cerebral Hemorrhage"

Prague, Ceskoslovenska Neurologie, Vol 26(59), No 4, July 1963, pp 224-230.

Abstract [Authors' English summary, modified]: Under investigation were two cases of intracerebral hemorrhage into the basal ganglia with perforation of the ventricular system and one case of subdural hematoma. All three patients survived. In diagnosis the emphasis is laid on anamnestic data, the dynamic development of neurological symptoms, examination of the cerebrospinal fluid, and carotid angiography. Surgical intervation is recommended during the first day after the stroke if there is no response to drug treatment. Cardiovascular insufficiency, diabetes mellitus, and renal diseases are regarded as contraindications. Twenty-three references, including 4 Czech and 4 Russian.

CZECHOSLOVAKIA

FRYNTOVA, A., Department for Brain Vessel Diseases (Oddeleni pro cevni nemoci mozku), Thomayer Hospital, Prague-Krc, Dr J. BUDINOVA-SMELA, Candidate of Sciences, director.

"Post- Apoplectic Neurotrophic Joint Changes Treated by Intra-Articular Application of Hydrocortisone"

Prague, Ceskoslovenska Neurologie, Vol 26(59), No 4, July 1963, pp 231-234.

Abstract [Author's English summary]: An evaluation is given of the treatment with hydrocortisone applied to 60 patients suffering from apoplexy followed by acute or chronic joint changes. The evaluation is based on an assessment of the degree of hemiparesis, changes in the joints and bones in their radiographic appearance, and on the time of the onset of the painful joint syndrome after apoplexy. The treatment described has become a routine in author's hospital. Seven references, including 2 Czech.

BUDINOVA-SMELA, J., doc. dr., CSc.; FRYNTOVA, A.; KACL, J.; MAJX, F.

The effect of premedication of the carotid angiogram. Cesk. neurol. 28 no.4:264-266 Jl'65.

1. Oddeleni pro cevni nemoci mozku Thomayerovy nemocnice v Praze-Krci (vedouci: doc. dr. J. Budinova-Smela, CSc.) a Radiologicka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta: prof. dr. V. Svab).

FRYNTOVA, A.; BUDINOVA-SMELA, J.; KACL, J.; VANCURA, V.; SKOP, V.

On the problem of angiospasm in cerebral arteries. Cas. lek. Cesk. 105 no.2:33-37 14 Ja '66.

1. Oddeleni pro cevni nemoci mozku, Praha-Krc (vedouci doc. dr. J. Budinova-Smela, CSc.) a Radiologicka klinika fakulty vseobecneho lekarstvi Karlovy University, Praha (prednosta prof. dr. V. Svab, DrSc.).

L 13390-66
ACC NR: AP6006737 SOURCE CODE: CZ/0082/65/000/004/0264/0266

AUTHOR: Budinova-Smela, J.; Fryntova, A.; Kacl, J.; Marx, F.

ORG: Department of Vascular Diseases of the Brain, Thomayer's Hospital, Prague (Oddeleni pro cevni nemoci mozki Thomayerovy nemocnice); Radiological Clinic, Faculty of General Medicine, Charles University, Prague (Radiologicka klinika fak. vseob. lek. KU)

TITLE: Influence of premedication upon the carotid angiogram

SOURCE: Ceskoslovenska neurologie, no. 4, 1965, 264-266

TOPIC TAGS: drug treatment, brain, blood, circulatory system disease

ABSTRACT: The influence of hypotensive drugs frequently used in premedication upon the cerebral hemodynamics is discussed. 5 cases are analyzed; it is probable that in these cases premedication caused contrast filling of the basilar artery and of its branches during carotid angiography. . .
[JPRS]

SUB CODE: 06 / SUBM DATE: 18Oct64 / ORIG REF: 001 / OTH REF: 010

Card 1/1 FW

FRYSHEV, B.N., inzh.

Pneumatic seeding mechanisms. Mashinostroenie no.1:77-79 Ja-F '63. (MIRA 16:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.
(Agricultural machinery)

FRYSNYAK, Sandor, foiskolai adjunktus

Kornel Chyzer, the scientist and science propagator.
Borsod szemle 8 no.1:90-92 '64.

1. "Borsodi Szemle" szerkesztoje.

FRYSOVA, N.

M

Country : CZECHOSLOVAKIA
Category: Cultivated Plants. Experimental Methods.

Abs Jour: RZhBiol., No 22, 1958, No 100207

Author : Zak, Vladimir, Frysova, Nadezda
Inst : -
Title : Dispersion Analysis of the Results of Variety Trials.

Orig Pub: Listy cukrovarn., 1958, 74, No 1, 9-10.

Abstract: As the result of a dispersion analysis of the results of a sugar beet variety trial in 1953-56 in Czechia and Moravia, the conclusion has been drawn that it is necessary to increase the replications in individual tests.

Card : 1/1

M-4

FRYSZ, Ryszard, inz.

A national exhibition of electronic measuring equipment. Pomiary 8 no.6:245-247 Je '62.

FRYSZMAN, A.

On the working mechanism of thin layers in pickup tubes. Bul Ac Pol mat 7 no.12:733-740 '59. (EEAI 9:10)

1. Institute of Industrial Electronics, Warszawa. Presented by A.Jablonski.
(Facsimile transmission)
(Television)

FRYSZMAN, A.

On maximum current in pick-up tubes. Eul Ac Pol tech 8 no.5:247-252 '60. (EEAI 9:10)

1. Industrial Institute of Electronics, Warsaw. Presented by J.Groszkowski.
(Electrons) (Photoconductivity)

FRYSZMAN, A.; STRZYZ, T.; WASINSKI, M.

On a mechnism of breakdown in high vacuum. Bul Ac Pol tech 8 no.7: 379-383 '60. (EEAI 10:3)

1. Oscilloscope Lamp Factory, Iwiczna near Warsaw. Presented by J.Groszkowski
(Vacuum) (Electron tubes)

23310
P/019/60/009/004/001/006
A224/A126

9.3130 (1140, 1163, 1538)

AUTHOR: Fryszman, A.

TITLE: Electron beam modulation by thin layers

PERIODICAL: Archiwum elektrotechniki, v. 9, no. 4, 1960, 655 - 676

TEXT: The subject of this work is an analysis of the mechanism of electron beam modulation by thin layers. In detail, the modulation mechanism is studied for the case when an electric field exists above the layer, which accelerates the secondary electrons emitted by the layer. This characteristic of operation has vidicons, image orthicons and ebicons. In ionoscopes and image ionoscopes there is a field retarding secondary electrons above the layer, and the modulation mechanism is basically different from the one studied. The potential changes of an insulated layer continuously bombarded by an electron beam was investigated by S. I. Katayev (Ref. 8: Katajew S. I.: O wtoricznych elektronach elektronno-luczewych telewizionnych trubok. Izd. WRK pri SNK SSRR 1953). The secondary emission rate (σ) is

$$\sigma = \frac{I_{sec}}{I_b} \qquad (1)$$

Card 1/ 4

Electron beam modulation by thin layers

where I_{sec} - secondary electron current; and I_b - bombarding-beam current. When $\sigma < 1$, the current flowing across the layer is

$$I = I_b [1 - (U_{ac})]; \quad (6)$$

and for the case $\sigma > 1$

$$I = I_b [(U_{ac}) - 1], \quad (7)$$

where U_{ac} - electron accelerating voltage. Assuming a linear dependence between σ and U_{ac}, we get:

$$\sigma = \pm kU_{ac} + b \quad (8)$$

where $k = tg\gamma$; the meaning of γ and b are given in Fig. 7 which illustrates a typical secondary emission characteristic. The relation between the current (I) flowing across the layer, and the voltage (U) on the surface of the layer is

$$I = I_b (d \pm kU) \quad (11)$$

where d is a parameter. The secondary emission curve can be divided into five regions having two different modulation mechanisms, as illustrated in Fig. 9: I region - $\sigma < 1$ and $k < 0$; II region - $\sigma < 1$ and $k > 0$; III region - $\sigma > 1$ and

Electron beam modulation by thin layers

$k>0$; IV region - $\sigma > 1$ and $k<0$; and V region - analogous to the I region. The first modulation mechanism exists in the I, IV, and V regions, and it is described by the formula:

$$I_m = dI_b \frac{(1 - e^{-\alpha})(1 - e^{-\beta})}{\alpha(1 - e^{-\alpha}e^{-\beta})}; \qquad (30)$$

where I_m - mean current flowing across the layer; $\alpha = \frac{I_b k}{C}$; C - capacitance of the layer; $\beta = \frac{T_o}{RC}$; R - resistance of the layer; and T_o - discharge time of the layer. In these regions the signal modulated by the layer is positive, i.e., a decrease of the layer resistance (R) increases the current (I_m) flowing across the layer. The other modulation mechanism exists in the II and III regions; it is described by the formula:

$$I_m = dI_b \frac{(e^{\alpha} - 1)(1 - e^{-\beta})}{(1 - e^{\alpha} e^{-\beta})}. \qquad (31)$$

In these regions, the signal modulated by the thin layer is negative, i.e., the current (I_m) flowing across the layer decreases with a decrease of the layer resistance (R). The modern camera tubes operate in the I region of the

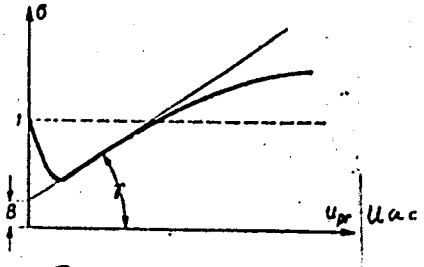
Card 3/ 4

Electron beam modulation by thin layers

secondary emission characteristic. There are 9 figures, and 11 references: 9 Soviet-bloc and 2 non-Soviet-bloc. The reference to the most recent English-language publications reads as follows: V. K. Zworykin, G. A. Morton: Television John Willey and Sohn NY.

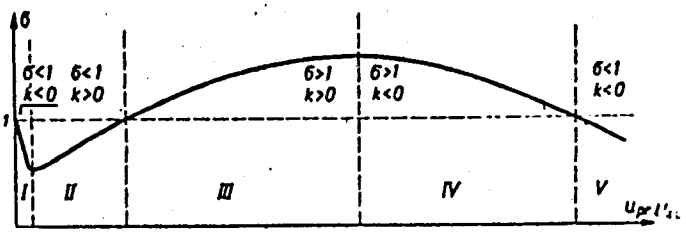
SUBMITTED: February 15, 1960

Figure 7: Typical secondary emission characteristic



Rys. 7. Typowa charakterystyka emisji wtórnej.

Figure 9: Division of the secondary emission characteristic into regions with different modulation mechanism.



Rys. 9. Podział charakterystyki emisji wtórnej na obszary o różnym mechanizmie modulacji.

Card 4/4

[illegible], A.

Surname (In caps); Given Names

Country: Poland

Academic Degrees:

Affiliation:

Source: Warsaw, Bulletin de l'Academie des Sciences /Série des Sciences Techniques, Vol IX, No.1, Jan 61, pp 33-38.

Data: "On the Operating Mechanism of the Superorthicon Camera Tubes. I"

1. Industrial Insti. of electronics, Warsaw. Presented by J. GROSZKOWSKI.

(English)

S/194/62/000/003/038/066
D256/D301

9.4140

AUTHOR: Fryszman, Aleksander

TITLE: TV camera tube

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 3, 1962, abstract 3-3-102shch (Pol'sk. pat., kl. 21a[1], 32/40, no. 44228, 20.02.61)

TEXT: In order to improve the efficiency of the scanning beam current modulation in a camera c.r. tube with internal photoeffect, it is proposed employing a high resistivity semiconductor, whose conductivity as well as the dielectric permeability changes under illumination causing a change in the elementary capacitance. The c.r. tube is of a conventional vidicon construction, and both fast and slow electrons can be used for scanning the relief. The target is made of cadmium sulphide or a mixture of cadmium sulphide with zinc sulphide to obtain a maximum change of the capacitance. It is expected to reduce the inertia of the tube by an appreciable amount

Card 1/2

S/194/62/000/003/038/066
D256/D301

TV camera tube

and the tube should be superior to the best conventional vidicons.
/ Abstracter's note: Complete translation. /

Card 2/2

FRYSZMAN, A.

Electron beam modulation by means of a thin layer in a decelerating field. Bul Ac Pol Tech 8 no.11/12:647-654 '60.

1. Industrial Institute of Electronics, Warsaw. Presented by J.Groszkowski.

S/194/62/000/012/041/
D413/D308

9,4140

AUTHORS: Fryszman, Aleksander and Zarzycka, Ewa

TITLE: The type PWF-3 vidicon

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1962, 38, abstract 12-3-75 kh (Prace Przemysł. inst. elektron., v. 1, no. 1, 1960, 3-19 (Pol.; summaries in Eng. and Rus.))

TEXT: The PWF-3 vidicon, basically similar to the Type 6198 and 6326 tubes, has been developed and put into production. The requirements for the sensitivity and inertia of the photoconductive targets are stated. It is noted that during the development a change in resistance was observed during irradiation by the read-out beam. Specially arranged measurements made it possible to determine the sign of the current carriers. A brief description is given of the technique for depositing the photoconductive layer (evaporation of Sb_2S_3 directly on to the envelope in an inert gas atmosphere)

Card 1/2

The type PWF-3 vidicon

S/194/62/000/012/047/101
D413/D308

and of the vacuum treatment of the tube as a whole. The peculiarities of the light characteristics under various conditions (various temperatures and voltages on individual electrodes) are considered in detail. A video signal of 0.1 μA is obtained with a target illumination of the order of 100 lux and a voltage of 32 V on the signal plate. Under operating conditions the signal/noise ratio is 39.2 - 41.5 dB, resolving power 450-500 lines, number of gradations of grey on the image 7, residual signal 77 - 84%. By selection three variants of the vidicon are distinguished, PWF-3A, PWF-3B and PWF-3C, intended respectively for studio, outside-broadcast and industrial cameras. Development is starting on new types of vidicon in which the front window is fused on through a layer of indium. [Abstracter's note: Complete translation.]

Card 2/2

WASINSKI, Miroslaw; STRZYZ, Zofia; FRYSZMAN, Aleksander

Certain mechanisms of spark breakdown in high vacuum. Przegl elektroniki 3 no.12:694-697 D '62.

1. Zaklady Lamp Oscyloskopowych, Warszawa.

P/053/62/000/012/004/011
E192/E382

AUTHORS: Wasiński, Mirosław, Strzyż, Zofia and Fryszman, Aleksander

TITLE: A breakdown mechanism in high vacuum

PERIODICAL: Przegląd elektroniki, no. 12, 1962, 694 - 697

TEXT: Numerous observations on oscilloscope tubes have shown that the breakdowns encountered in them had the features of an arc discharge caused by cold emission. The breakdowns occurred near the negative electrode at the glass or ceramic surface. The breakdowns were preceded by blue luminescence of glass or pinkish luminescence of ceramics, caused by bombardment of the surface by cold-emission electrons. However, calculations have shown that in this case (by using the Nordheim formula) the current densities which could be produced in the tubes were insufficient for initiating an arc discharge. The following hypothesis explaining the breakdown mechanism was therefore formulated. The region between the electrodes supported by the ceramic or glass contains free electrons produced by cold emission. These are accelerated and attracted towards the "positive" electrode. Depending on the

Card 1/3

A breakdown mechanism ....

direction and their initial velocity, the electrons either reach the positive electrode or bombard the surface of the insulator in the vicinity of this electrode. The surface of the insulator is charged positively to the potential near to that of the positive electrode due to the fact that their secondary-emission coefficient at these voltages is greater than unity. The field strength near the negative electrode thus increases gradually until it reaches a value sufficient for producing a cold-emission arc. At the instant of the appearance of the arc, the surface of the insulator is discharged, the field decreases, the arc is extinguished and the process can be repeated. After several breakdowns, the leakages on the surface of the insulator become greater than the secondary-emission currents (due to the sputter of the emitter material) and the process comes to an end. The hypothesis was verified experimentally by using a special oscilloscope tube in which the test electrodes were made in the form of two rings of colloidal graphite deposited on the internal walls of the glass envelope. The experiments showed that in order to prevent breakdown in high vacuum it was necessary to: 1) employ insulators with leakages greater than the possible secondary-emission current; 2) employ

Card 2/3

P/053/62/000/012/004/011
E192/E382

A breakdown mechanism ....

insulators with a secondary-emission coefficient lower than unity; 3) coat the surface of the insulator in the vicinity of the negative electrode with a semiconductor layer and 4) screen part of the surface of the insulator near the negative electrode. There are 5 figures and 1 table.

ASSOCIATION: Zakłady Lamp Oscyloskopowych
(Oscilloscope Tube Works)

Card 3/3

S/275/63/000/001/013/035
D469/D308

AUTHORS: Fryszman, Alexander, Bilińska, Bożena, Urbański, Jerzy and Zarzycka, Ewa

TITLE: A light-sensitive layer suitable for transmitter TV tubes and the method of its preparation

PERIODICAL: Referativnyy zhurnal, Elektronika i yeye primeneniye, no. 1, 1963, 38, abstract 1A 219 P (Polish patent, kl. 21g, 13/25, no. 44593, July 1, 1961)

TEXT: The patented highly sensitive substance with high resistivity can be used for storage signal electrodes operating under normal conditions. The semiconductor Sb_2S_3 is activated by a mixture of Cu, Au and Ag. The mixture (whose weight is 0.1 to 0.5% of the weight of the semiconductor) is deposited on the output side and then fused twice in vacuum or in the atmosphere of an inert gas. Further stages of preparation of the signal electrode are not different essentially from the usual procedures employed during pro-

Card 1/2

A light-sensitive layer ...

duction of vidicons (sputtering in a N atmosphere). The resultant sensitivity is 5 times greater than that of standard vidicons; the dark current in signal electrode is somewhat diminished.

ASSOCIATION: Przemysłowy Instytut Elektrotechniki, Poland
[Abstracter's note: Complete translation.]

Card 2/2

S/275/63/000/001/012/035
D469/D308

AUTHOR: Fryszman, Alexander

TITLE: A vidicon with a signal electrode of reduced capacity

PERIODICAL: Referativnyy zhurnal, Elektronika i yeye primeneniye, no. 1, 1963, 38, abstract 1A 218 P (Polish patent, kl. 21 a^1, 32/54, no. 44758, Aug. 14, 1961)

TEXT: A TV tube of vidicon type is patented since it is distinguished by a multi-layered signal electrode (S) with a reduced capacity. The capacity of light-sensitive semiconductor layers, used in known constructions of vidicons, is quite appreciable and this causes considerable operational inertia of these tubes. The capacity of S may be reduced by increasing the layer thickness or by using porous layers with small effective dielectric constants. However, such methods are not convenient from technological or structural points of view. The S in the patented vidicon tube consists of at least two layers: a thin light-sensitive layer with large dielectric constant and a layer with low dielectric constant. The

Card 1/2

A vidicon with ...

capacity of such S is much lower than the capacity of an S of the same thickness, consisting of a single layer. Glass may be used for the layer with low dielectric constant. A typical construction of S is: a thin glass basis is fixed to a metallic ring; one side of this basis is covered with a thin and transparent conducting layer (e.g. gold), the other is covered with a light-sensitive layer. The image is projected on the light-sensitive layer, through the transparent metal layer and glass. The reduced capacity and inertia of such vidicons widens the field of their application and makes them particularly suitable for TV purposes.

ASSOCIATION: Przemysłowy Instytut Elektrotechniki, Poland

[Abstracter's note: Complete translation.]

FRYSZMAN, Andrzej; KASPROWICZ, Z.; NESTERUK, Konstanty

Low-heating-power cathodes for oscilloscope and kinescope tubes and vidicons. Przegl elektroniki 3 no.11:665-666 N '62.

1. Przemyslowy Instytut Elektroniki, Warszawa.

DEREN, Jerzy; FRYT, Ewa

Iodometric method of determination of excess zinc in zinc oxide. Chem. anal 8 no.3:365-367 '63.

1. Department of Inorganic Chemistry, School of Mining and Metallurgy Laboratory of Surface Phenomena, Institute of Physical Chemistry, Polish Academy of Sciences, Krakow.

FRYZE,Cezary; STEFANIUK,Jan

Cystometrographic changes in patients after cerebral stroke.
Polski tygod.lek. 15 no.19:707-710 9 My '60.

1. Z Kliniki Chorob Nerwowych P.A.M. w Szczecinie; kierownik:
doc. dr. med. Michal Jarema.
(URINATION DISORDERS etiol.)
(CEREBRAL HEMORRHAGE compl.)

FRYZE, Cezary

Functional disorders of the urinary bladder in patients with multiple sclerosis in the light of cystosphincterometric studies. Roczn. pom. akad. med. Swierczewski. 7:187-212 '61.

1. Z Kliniki Chorob Nerwowych Pomorskiej Akademii Medycznej Kierownik: doc. dr med. Michal Jarema.

(BLADDER physiol) (MULTIPLE SCLEROSIS physiol)

ZAJDEL, Maria; SKAKONIK, Wilhelmina; FRYZE, Cezary

Studies on the blood balance in patients with apoplexy and non-traumatic subarachnoid hemorrhage. Preliminary communication. Neurologia etc. polska 11 no.1:53-56 Ja-F '61.

1. Z Kliniki Chorob Nerwowych PAM w Szczecinie Kierownik: doc. dr med. M. Jarema.

(SUBARACHNOID HEMORRHAGE blood)
(CEREBRAL HEMORRHAGE blood)

FRYZE, Krystyna

Studies on the utilization of oxygen subjects susceptible and resistant to dental caries. Roczn. Pom. akad. med. Swierczewski 10:295-318 '64.

1. Z Zakładu Stomatologii Zachowawczej Pomorskiej Akademii Medycznej (Kierownik: naukowy: prof. dr Janusz Krzywicki) i z Zakładu Chemii Fizjologicznej Pomorskiej Akademii Medycznej (Kierownik: st. wykl. dr Eugeniusz Lempicki).

GEL'MAN, V.M. [Hel'man, V.M.], kand. ekon. nauk; FTOMOV, G.S. [Ftomov, H.S.]

Problems involved in wages for machinery operators on collective farms. Visnyk AN URSR 30 no.8:28-38 Ag '59.
(MIRA 13:1)

(Farm mechanization) (Wages)

FTOREK, S.

Engineer Stefan Senkery on locomotive No. 556.0. p. 209.
ZELEZNICE, Prague, Vol. 4, no. 8, Aug. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6, June 1956, Uncl.

H-4

COUNTRY : Poland
CATEGORY :

18205

ABS. JOUR. : RZKhim., No. 51960, No.

AUTHOR : Bursa, S. and Ftrabzko, J.
INST. : Not given
TITLE : Study of the Causes of Corrosion in Plants for the Absorption of Oxides of Nitrogen

ORIG. PUB. : Przemysl Chem, 38, No 4, 220-224 (1959)

ABSTRACT : It has been established that the principal cause for the corrosion of the absorption units in the production of HNO_3 is the accumulation of nitrosyl chloride, NOCL, in the absorbers; the NOCL is formed along with Cl_2 as the result of the oxidation of the chlorides contained in the water used for the absorption. The following steps are recommended for the elmination of the corrosion problem: utilization of chlorine-free water, the addition of inhibitors of the oxidation of chlor-

CARD: 1/2

H-4

COUNTRY : Poland
CATEGORY :

18205

ABS. JOUR. : RZKhim., No. 5 1960, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : ides and of the formation of NOCL to the working solution, and the lining of the equipment with Vinidur.

V. Levinson

CARD: 2/2

209

SHEYNIN, S.A., inzh.; FUCHADZHI, K.S.; SOROCHKIN, Yu.N., inzh., red.; ARTYUKHIN, V.A., red. izd-va; EL'KIND, V.D., tekhn. red.

[Catalog of spare parts for the ZAZ-965 and ZAZ-965B "Zaporozhets" automobiles] Katalog zapasnykh chastei avtomobilia "Zaporozhets'" modeli ZAZ-965 i ZAZ-965B. Moskva, Mashgiz, 1963. 191 p. (MIRA 16:6)

1. Zaporozhskiy avtomobil'nyy zavod "Kommunar."
(Automobiles--Catalogs)

FUCHEDZHI, V.

In a collective-farm defense group. Voen.znan. 34 no.10:10-11 O '58. (MIRA 11:12)

1. Predsedatel' komiteta pervichnoy organizatsii Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu kolkhoza imeni M.I. Kalinina.

(Military education)

FUCHIK, Yulius [Fučik, Julius]; POZHEZHINSKAYA, O.A.[translator]: GAKKEL', Ya.Ya., otv. red.

[Conquest of the North Pole; a report on the reality which surpassed the phantasy of Jules Verne] Zavoevanie Severnogo poliusa; reportazh o deistvitel'nosti, kotoraia prevzoshla fantaziiu Zhiulia Verna. Leningrad, Gidrometeoizdat, 1964. 66 p. (MIRA 18:.)

FUCHKOV, I.N.

Organizing agrometeorological posts in rural schools. Geog. v shkole 25 no.2:47-49 Mr-Ap '62. (MIRA 15:2)

1. Timokhinskaya shkola Sverdlovskoy oblasti.
(Meteorology, Agricultural--Study and teaching)

REINIS, Z.; FUCHMAYER, V.; VANECEK, R.; KUBAT, K.; DUBEN, Z.

The influence of environmental factors on experimental atherosclerosis in chickens. Cor Vasa 3 no.3:178-187 '61.

1. Fourth Medical Clinic, Second Institute of Pathology, Charles University, Prague, and Veterinary Center, Caslav, Czechoslovakia.

(ARTERIOSCLEROSIS exper) (ENVIRONMENT)
(CHOLESTEROL nutrition & diet)

FUCHS, [illegible]

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Part 1. - Safety and Sanitation Techniques. H

Abs Jour: Ref. Zhurnal Khimiya, No 21, 1958, 71298.

Author : Alexandr Fuchs.
Inst :
Title : Hygienic Problems in Work with Methyl Chloride in Refrigeration Industry.

Orig Pub: Pracovni lekar., 1957, 9, No 6, 533-535.

Abstract: Measures to prevent poisoning with methyl chloride (I) in refrigeration industry are recommended; these measures are: planning of refrigeration enterprises with the participation of a hygienist, addition of acrolein or acetophenone to I for the detection of I leakage in good time, substitution

ODD. HYGIENY PRACE HES-UNIV PRAHA.

Card : 1/2

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Part 1. - Safety and Sanitation Techniques. H

Abs Jour: Ref. Zhurnal Khimiya, No 21, 1958, 71298.

of I with Freon-12 in refrigeration installations, equipment with efficient ventilation. No person under 18 years of age and no pregnant women should be employed in with I.

Card : 2/2

14

FUCHS, A.

Wood-industrialization centers as means for complex and complete utilization of woody masses. p. 81.

INDUSTRIA LEMNULUI. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania si Ministerul Industriei Lemnului. Bucuresti, Rumania. Vol. 8, no. 3 Mar. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 7, July 1959.

Uncl.

FUCHS, A.; PALECKOVA, P.; BARTONOVA, M.

Danger from benzene while working with glues for leather. p. 437.

CESKOSLOVENSKA HYGIENA. Praha, Czechoslovakia. Vol. 4, no. 8, Sept. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, January 1960.
Uncl.

FUCHS, Alexandr

Review of hygienic problems in the production and processing of plastic substances. Prac. lek. 13 no.8/9:431-437 N '61.

1. Ministerstvo chemickeho prumyslu.

(INDUSTRIAL MEDICINE) (PLASTICS toxicol)
(CHEMICAL INDUSTRY)

FUCHS, Alexandr

Death in an atmosphere with inadequate oxygen content. Prac. lek. 17 no.7:318-321 S '65.

DAVID, A.; FUCHS, A.; PACHNER, P.; VASAK, V.

Mercury (metal). Prac. lek. 15 no.2:suppl:3-4 Mr '63.

(MERCURY) (AIR POLLUTION)

FUCHS, Anatolie, ing.; NAFTALI, Simion, ing.

Complexes for wood industrialization, a main factor of progress in the Rumanian Wood Industry. Ind lemnului 15 no.8:289-299 Ag '64.

FUCHS, A.

"Standardization of Concrete Mixers." Discussion of the importance and explanation of the contents of new standard specifications relating to concrete mixers.

SO: Mechanisace, Czechoslovakia, Vol 3, No 1, Jan 1954, (AF-617422, 12 Apr 1954)

FUCHS, A.

Standardization of concrete mixers. p. 88.

Vol. 3, no. 3, Mar. 1954 (Mechanisace)
INZENYRSKE STAVBY
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5 No. 4 April 1956

FUCHS, A.

"Equipment for the Production of Pre-fabricated Concrete Building Sections." Article discusses mechanical equipment and transportation as well as the materials used.

SO: Mechanisace, Czechoslovakia, Vol 3, No 1, Jan 1954, (AF-617422, 12 Apr 1954)

FUCHS, A.; BYCKOVSKY, V.

Economical prefabricated roof trusses and their assembly. p. 205. (Pozemni Stavby, Vol. 5, No. 4, Apr 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

FUCHS, A.; BYCKOVSKY, V.

The construction industry in Italy. p. 208. (Pozemni Stavby, Vol. 5, No. 4, Apr 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957.Uncl.

CZECHOSLOVAKIA

A. DAVID, A. FUCHS, P. FACHNER and V. VASAK [Affiliation not stated.]

"Carbon Sulfide."

Prague, Pracovni Lekarstvi, Vol 15, No 1, Jan 1963; pp 1-2 of separately paginated Section "Reviews" (Prehledy).

Abstract: Twelve physicochemical properties of CS_2 are tabulated; maximal allowable concentration is now 50 mg. per square meter in Czechoslovakia, 10 in USSR, 30 in Great Britain, 60 in USA; planned CEMA norm will be 10; industrial and technical uses of the compound and precautions in working with it are enumerated; also analytical methods and toxicology tests, biological exposure tests, preventive steps and counterindications are listed. Seven Czech, 1 Soviet, 10 Western ref's.
1/1

- END -

2434
CSO: 2000-N

importance of the periods of exposure [illegible]
due to the introduction of continuous spinning, air conditioning, and . constant medical supervision are described. 2 Tables, 8 Czech references. (Manuscript received 12 Jan 66).

FUCHS,B.

Czechoslovakia

Tuberculosis Section, Central Military Hospital; work carried on at the Tuberculosis Research Institute (Tuberkulozni oddeleni Ustredni vojenske nemocnice, pracoviste Vyzkumny ustav tuberkulozy v Praze 8 - Bulovka), Prague; Director: F. PREBOROVSKY, MD.

Prague, Rozhledy v tuberkulose a v nemocech plicnich, No 8, Sep 62, pp 574-577.

"Pulmonary Neoplasma in Photofluorographic Surveys of Servicemen".

FUCHS, B.

Czechoslovakia

Tuberculosis Department UVN in Prague -- Prague (Tuberkulózní oddělení ÚVN v Praze -- Praha); Director: F. PŘEBOROVSKÝ, Dr; Laboratory of the Experimental Institute of Tuberculosis in Prague -- Prague (Pracoviště Výzkumný ústav tuberkulózy v Praze -- Praha)

Prague, Rozhledy v tuberkulóse, No 1, 1963, pp 15-18

"Which is the Optimal Method for Interpretation of Photofluorograms?"

MESTER, Istvan; FUCHS, Erik

Nondestructive metallographic tests. Koh lap 9 no. 10: Supplement: Ontode 5 no. 10: 217-227 O '54.

1. Vasipari Kutato Intezet.

FUCHS, E.

181. An attachment for the macrophotography of surfaces. E. Fuchs. *Feinmech. Präzision*, Vol. 6, 1955, [illegible]--181, 3 figs.

The attachment can be applied to any miniature reflex camera with interchangeable lenses for taking macrophotographs of the machined, pitted or defective surfaces of cumbrous parts unsuitable for microscopic examination. The attachment can be easily constructed in the plant and may be placed directly on the piece to be photographed. Owing to its simple operation and independence of the electric mains it may be regarded as a complementary instrument for metallographic tests

Fuchs, E.

2
4E2d

Accessory Equipment for the Macrophotography of Machined Surfaces. E. Fuchs. (*Kohászati Lapok*, 1955, 10, *Ontöde*, Aug., 179–181). An accessory device is described which is applicable to light field illumination for the macrophotography of machined surfaces. The equipment can be mounted on any kind of 'miniature' camera that is equipped for specular reflection and interchangeable objectives. It may be used with an accumulator if electric power is not available.—P. K.

Fuchs, E.

18 2

78. **A new method for the direct microscopic observation of corrosive and electrolytic processes.** E. Fuchs, T. Baumann. *Kohászati Lapok*. Vol. 11 (69), 1936, No. 3, pp. 107—112, 5 figs.

A Reichert *MeF* metal microscope equipped with simple and compound test vessels illustrated by drawings and photos. The corrosive medium can be made to flow continuously in the vessels during the tests as well. Apropriate electrodes must be fitted into the vessels for electrolysis. The microscope can be protected by a baffle and tray conducting any spilled liquid into a container. A series of microphotographs taken with a small film camera of an electrolytic polishing and etching process is published as an example of the versatility of the method.

RBmt

FUCHS, E.

"Preparing electrolytic metallographic probes."

p. 223 (Gep) Vol. 9, no. 6, June 1957
Budapest, Hungary

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

HUNGARY / Chemical Technology, Chemical Products and H
Their Application, Part 2. - Electromechanical Industries, Electroplating, Chemical Sources of Electric Current.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61574.

Author : Erik Fuchs.
Inst : Not given.
Title : Preparation of Metallographic Sections by Electrochemical Method.

Orig Pub: Gep, 1957, 9, No 6, 223 -228.

Abstract: Review. Bibliography with 21 titles.

Card 1/1 21

FUCHS, E.

Determination of the grain size of aluminum oxide by the X-ray diffraction method. p. 461

GEP (Gepipari Tudomanyos Egyesulet) Budapest, Hungary
Vol. 11, no. 12, Dec. 1959

Monthly list of East European Accession (EEAI) LC Vol. [illegible]
9, no. 2, Feb. 1960
[illegible]

Uncl.

H/014/60/000/002/003/003
E190/E435

AUTHOR: Fuchs, Erik

TITLE: A New Portable Equipment for Non-Destructive Metallographic Examinations

PERIODICAL: Kohászati lapok, 1960, No.2, pp.79-82

TEXT: The paper is one of a series published on the 10th Anniversary of the Vasipari Kutató Intézet (Research Institute for the Iron Industry).
Equipment suitable for the electrolytic preparation of metallographic specimens has been available for over 15 years but the size of work-pieces that could be examined on their surface, i.e. in a non-destructive fashion, was limited by the construction of polishing equipment and microscopes. As the result of work carried out with I. Mester, group-leader of the "Research Institute for the Iron Industry", an equipment suitable for the preparation of large work-pieces, together with a special hand-microscope, was built and taken in use in 1954. An improved, patented version was constructed in 1957. The new portable equipment is 1) suitable for examining work-pieces of any size or material in situ and 2) substitutes conventional test equipment

Card 1/3

in smaller laboratories. The equipment is housed in 3 portable units of 22 x 22 x 35 cm dimension and of 6 to 8 kg weight. The instrument-panels at the front and the storage racks at the back of each unit are protected by lids. The first unit contains a 100 to 250 V 50 c.p.s. electric motor, a flexible drive and a set of grinding and polishing stones. If no mains current is available, the mechanical preparation is done by hand. The second unit contains a specially designed electrolysing head which is filled with a suitable electrolyte and placed on the mechanically prepared surface (this need not be horizontal). The current, drawn from the mains or from the internal battery, is then switched on; separate instruments show the polishing and the etching current. The prepared spot of 2 to 4 mm dia is then cleaned with alcohol and dried with a hand blower. The third unit comprises a hand metal-microscope with stands to fit all types of surface, optics to give magnifications up to 600x and adaptors for taking standard 35 mm cameras. In order to reduce fatigue in normal laboratory use, a bench-stand is supplied as well. The unit-construction considerably increases the capacity of the equipment, the two stages of preparation can be trusted to trained assistants with a

A New Portable Equipment ...

metallurgist making the actual observation only. The method is so cheap and quick that it can replace with advantage available standard equipment. There are 11 figures and 4 non-Soviet-bloc references.

Card 3/3

FUCHS, Erik, okleveles kohomernok

Structural analysis of cobalt-chrome based alloys for medical purposes.
Koh lap 93 no.3:137-140 Mr '60.

FUCHS, Erik

Graphitization of steel. Koh lap 95 no.12:529-536 D '62.

1. Vasipari Kutato Intezet, Budapest.